ASAP - Genoa

Dart Aerospace Ltd.

Date: Friday, 19/01/2007 8:50:30 AM
User: Linda Lacelle

Process Sheet

Customer	: CU-DND001 Department of National	**Drawing Name**	: STIFFFENER
Job Number	: 30324		
Estimate Number	: 12653		
P.O. Number	: N/A	**Part Number**	: G106045
This Issue	: 19/01/2007 **S.O. No.** : N/A	**Drawing Number**	: G10604 REV A
Prsht Rev.	: NC	**Project Number**	: N/A
First Issue	: N/A **Type** : SMALL /MED FAB	**Drawing Revision**	: A
Previous Run	: N/A	**Material**	: N/A
Written By	:	**Due Date**	: 26/01/2007 **Qty:** 10 **Um:** Each
Checked & Approved By	:		
Comment	: Est Rev:A New Issue 07-01-18 JLM		

Additional Product REPLACE

Job Number:

Seq. #:	Machine Or Operation:	Description :
1.0	M2024T3S050	2024-T3 .050 sheet

Comment: Qty.: 0.4430 sf(s)/Unit Total : 4.4300 sf(s)
2024-T3 .050 sheet M103321
Batch: M103210

2.0	WATER JET	FLOW WATER JET (10)

Comment: FLOW WATER JET MM 07 01 29
1-Cut as per Dwg G10604
Dwg Rev: A
Prog Rev: G106045

SAD 07/01/22 (10)

2-Deburr if necessary

SB 07/01/22 10

****USE SAME CUTTING FILE FOR -4 & -5*****

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE (10)

MM 07 01 29

Comment: INSPECT PARTS AS THEY COME OFF MACHINE SAD 07/01/22 (10)

4.0	QC8	SECOND CHECK

MM07/01/29 (10)

Comment: SECOND CHECK MM07/01/22 (10)

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1

Comment: SMALL & MEDIUM FAB RESOURCE 1
1-C'sink as per Dwg G10604
C'SINK Ø.128" Holes only
To Ø.225" x 100°

FF 07-01-22 10

Form: rprocess

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes (No) **DQA:** ~~Y~~ N/A **Date:** 07/22/05

QA: N/C Closed: _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Date: Friday, 19/01/2007 8:50:30 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DND001 Department of National **Drawing Name:** STIFFFENER

Job Number: 30324 **Part Number:** G106045

Job Number:

Seq. #:	Machine Or Operation:	Description :	
	2-Formas per Dwg G10604		07/01/23
6.0	QC5	INSPECT WORK TO CURRENT STEP	07/01/31 (10)
	Comment: INSPECT WORK TO CURRENT STEP		07/01/23 (10)
7.0	HAND FINISHING1	HAND FINISHING RESOURCE #1	07/02/01
	Comment: HAND FINISHING RESOURCE #1 Chemical Conversion Coat as per QSI 005 4.1		07-01-24 (10)
8.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION	
	Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION		07-1-24 (10)
9.0	PACKAGING 1	PACKAGING RESOURCE #1	
	Comment: PACKAGING RESOURCE #1 Identify and Stock Location:_____		07/01/24 (10)
10.0	QC21	FINAL INSPECTION/W/O RELEASE	(10)
	Comment: FINAL INSPECTION/W/O RELEASE		07/02/05

Job Completion

Form: rprocess

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

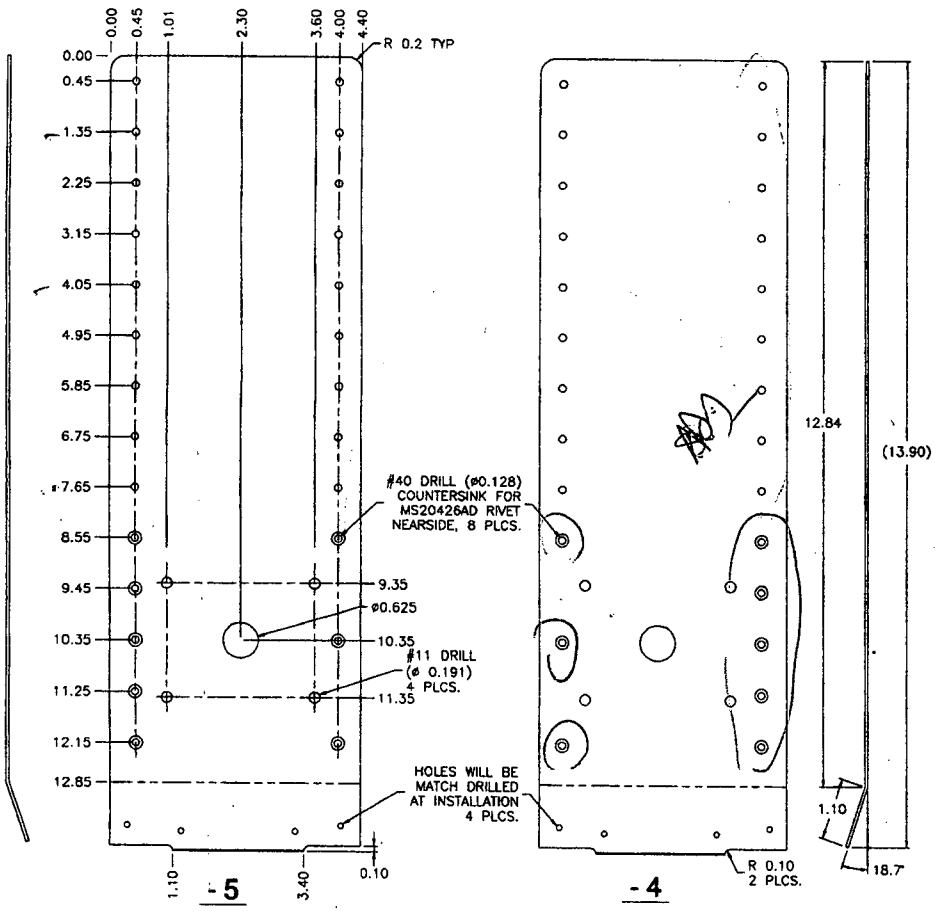
QA: N/C Closed: _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

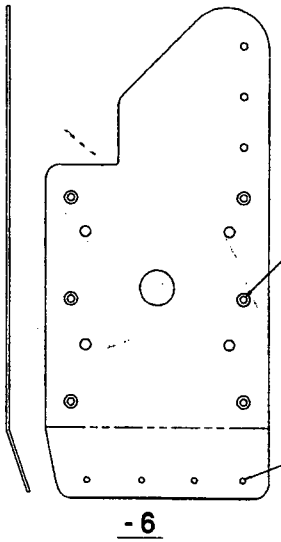
NOTE: Date & initial all entries

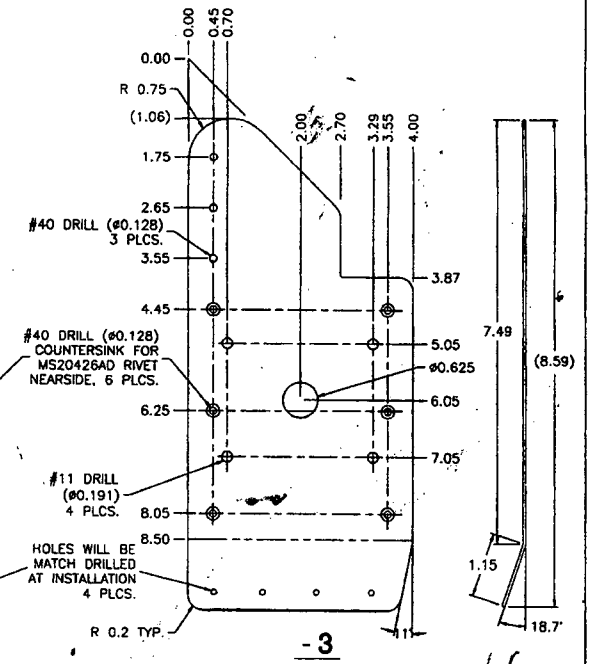
WO 30324

REVISION			
REV	DESCRIPTION	DATE	APPROV.
A	– COMBINE SHEET 1 AND 2. – CHANGE DRAWING FORMAT. – UPDATE DIMENSIONS AND NOTES. – ECO 1038, 1040	4/9/01	



-4 AND -5 FLAT PATTERN ARE IDENTICAL EXCEPT BENDS ARE OPPOSITE SIDE AND COUNTERSINK AS NOTED





-3 AND -6 FLAT PATTERN ARE IDENTICAL EXCEPT BENDS ARE OPPOSITE SIDE AND COUNTERSINK AS NOTED

5.41/sf

NOTES:

UNLESS OTHERWISE NOTED.

1. MAT'L: ALUM 0.050 THICK, 2024-T3 QQA-250/4
2. ALL PILOT HOLES ARE #40 DRILL (ø0.098), TO BE DRILLED TO SIZE AT ASSEMBLY.
3. FINISH: ETCH, ALODINE PER MIL C5541-1A,

BREAK ALL EDGES ✓ UNLESS OTHERWISE SPECIFIED DIMENSION ARE IN INCHES DIMENSIONAL TOLERANCES 3 DECIMALS ± .010 2 DECIMALS ± .020 1 DECIMAL ± .050 ANGULAR ± 1°	DRAWN T. S.	DATE 3/20/95	GENEVA AVIATION 10108 – 32nd Ave W Everett, WA 98204 (425)353-7400 FAX(425)347-7100
	CHECK	DATE	
	DESIGN	DATE	TITLE REAR SHOULDER HARNESS STIFFENER
	APPROVAL RGC	DATE 4/3/95	DWG NO. G10604 REV. A
THIS DRAWING INCLUDES INFORMATION PROPRIETARY TO GENEVA AVIATION AND SHALL NOT BE USED OR DUPLICATED BY ANYONE WITHOUT THE WRITTEN PERMISSION OF GENEVA AVIATION INC.			PRO NO. GA159 SIZE D SCALE 1/1 SHT 1 OF 1

DART AEROSPACE LTD	Work Order:	30324 ~~106045~~
Description:	Part Number:	6106045
Inspection Dwg: Rev:		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [X] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.128	+0.005/-0.001	Ø0.129	✓		Vern	
Ø0.625	+0.005/-0.001	Ø0.625	✓		Vern	
Ø0.191	+0.005/-0.001	Ø0.191	✓		Vern	
1.10	± 0.030	1.09	✓		Very Vertical	
3.40	+/- 0.030	3.40	✓		Vertical Vern	
4.40	+/- 0.030	4.40	✓		Vern	
0.45	+/- 0.030	0.452	✓		Vern	
1.01	+/- 0.030	1.00	✓		Vern	
2.30	+/- 0.030	2.30	✓		Vern	
3.60	+/- 0.030	3.60	✓		Vern	
4.00	+/- 0.030	4.00	✓		Vern	
0.45	+/- 0.030	0.45	✓		Vern	
1.35	+/- 0.030	1.35	✓		Vern	
3.15	+/- 0.030	3.15	✓		Vern	
4.95	+/- 0.030	4.95	✓		Vern	
7.65	+/- 0.030	7.65	✓		Vern	
9.35	+/- 0.030	9.35	✓		Vern	
11.35	+/- 0.030	11.35	✓		Vern	
0.050	+/- 0.010	0.050	✓		Very	

Measured by:	SAD	Audited by:		Prototype Approval:	
Date:	07/01/21	Date:	07/01/22	Date:	

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

DART AEROSPACE LTD	Work Order:	30324
Description: stiffener	Part Number:	G10604-5
Inspection Dwg: G10604 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [X] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.45	+/-0.030	0.455	✓		vern	
Ø0.191	+0.005-0.001	0.191	✓		vern	
Ø0.128	+0.005-0.001	0.128	✓		vern	
Ø0.098	+0.004-0.001	0.098	✓		vern	
Ø0.625	+0.008-0.001	0.625	✓		vern	
4.40	+/-0.030	4.403	✓		vern	
2.30	+/-0.030	2.305	✓		vern	
1.01	+/-0.030	1.01	✓		vern	
3.60	+/-0.030	3.60	✓		vern	
0.45	+/-0.030	0.45	✓		vern	
10.35	+/-0.030	10.354	✓		vern	
9.35	+/-0.030	9.351	✓		vern	

Measured by:		Audited by:		Prototype Approval:	
Date:	07/01/25	Date:	07/04/29	Date:	

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

m2024T3 5050
m103210

SHIP TO:

SOLD TO:

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2566

CERTIFIED TEST REPORT

Serial Number
4062914

CUSTOMER PO NUMBER:	WORK PACKAGE:	CUSTOMER PART NUMBER:	SHIP RUNLOAD ID:	GOVT CONTRACT NUMBER:	
N18187			100630/10		
KAISER ORDER NO:	**LINE ITEM:**	**SHIP DATE:**	**ALLOY:**	**CLAD:**	**TEMPER:**
1033882	1	24-MAR-2006	2024	CLAD	T3
WEIGHT SHIPPED:	**QUANTITY:**	**B/L NUMBER:**	**GAUGE:**	**WIDTH:**	**LENGTH:**
7895 LB	223 PCS EST.	207855	0.0500 IN	48.000 IN	144.000 IN

Certified Specifications

AMS 4041/RevP
BATS 2505/RevNC

AMS-QQ-A-250/5/RevA
DMS 2174/RevB

ASTM B 209/Rev04

Test Results

Test Code: 4013

Lot: 350042AB Cast 315 Drop 16 Ingot 2

Tensile:	Temper	Dir / # Tests LT / 2 (Min:Max)	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T3		63.9 : 64.7 ✓ (441 : 445)	44.6 : 45.6 ✓ (309 : 316)	15.2 : 1:1.6 ✓

MRS Deflection : 0.017 IN

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR		OTHER
Actual	0.09 ✓	0.24 ✓	4.57 ✓	0.59 ✓	1.40 ✓	0.01 ✓	0.13 ✓	0.02 ✓	0.01 ✓	0.01 ✓	TOT	0.04 ✓

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
2024 MIN	0.00	0.00	3.80	0.30	1.20	0.00	0.00	0.00	0.00	0.00	EACH	0.05
MAX	0.50	0.50	4.90	0.90	1.80	0.10	0.25	0.15	0.05	0.05	TOT	0.15
LINER MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	EACH	0.03
MAX	0.25	0.40	0.05	0.05	0.05	0.00	0.05	0.03	0.05	0.00	TOT	0.00

Aluminum Remainder

TEST NOTES

MATERIAL MEETS MINIMUM RESIDUAL STRESS (MRS)/ CHEMICAL MILLING QUALITY (CMQ) REQUIREMENTS.

SHIP TO:
COPPER & BRASS
1715 WOODLAND DR.
SALINE, MI 48176

SOLD TO:
COPPER & BRASS SALES
ATTN: ACCOUNTS PAYABLE
P.O. Box 5116
SOUTHFIELD, MI 48086

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4080397

A103521 G1U624-4 35323

CUSTOMER PO NUMBER:	WORK PACKAGE:	CUSTOMER PART NUMBER:	SHIP RUN/LOAD ID:	GOV'T CONTRACT NUMBER:
CN5004		061825-6	100828/18	

KAISER ORDER NO:	LINE ITEM:	SHIP DATE:	ALLOY:	CLAD:	TEMPER:	PRODUCT DESCRIPTION:
1043478	1	9-NOV-2006	2024	BARE	T3	MILL FINISH SHEET

WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	GAUGE:	WIDTH:	LENGTH:
3990 LB	143 PCS EST.	2010362	0.0400 IN	48.000 IN	144.000 IN

Certified Specifications

AMS 4037/RevN | AMS-QQ-A-250/4/RevA | ASTM B 209/Rev06

Test Results

Test Code: 1504

Lot: 380935A7 **Cast 351** **Drop 40** **Ingot 3**

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T3	LT / 2 (Min:Max)	67.7 : 68.0 (467 : 469)	46.6 : 46.8 (321 : 323)	15.3 : 16.4

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR		OTHER
Actual	0.09	0.28	4.51	0.59	1.43	0.03	0.16	0.02	0.01	0.00	TOT	0.05

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
2024 MIN	0.00	0.00	3.80	0.30	1.20	0.00	0.00	0.00	0.00	0.00	EACH	0.05
MAX	0.50	0.50	4.90	0.90	1.80	0.10	0.25	0.15	0.05	0.05	TOT	0.15

Aluminum Remainder

CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR

Bill Poynor